ATOMIC ABSORPTION

If Atomic Absorption (AA) is your technique of choice, we think you'll appreciate our full line of AA standards.

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- ✓ Traceable to NIST SRMs
- ✓ Produced under ISO 9001
- ✓ Assayed by validated procedures

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ATOMIC ABSORPTION

SINGLE-ELEMENT STANDARDS

1,000 µg/mL Standards

1,000 µg/mL

ANALYTE	MATRIX	STARTING MATERIAL	VOLUME	CATALOG #
Aluminum, Al	HNO_3	Al metal	125 mL 500 mL	AAAL1-1 AAAL1-5
Antimony, Sb	HNO_3 / Tartaric Acid	Sb metal	125 mL 500 mL	AASB1-1 AASB1-5
Arsenic, As	HNO_3	As metal	125 mL 500 mL	AAAS1-1 AAAS1-5
Barium, Ba	HNO_3	$Ba(NO_3)_2$	125 mL 500 mL	AABA1-1 AABA1-5
Beryllium, Be	HNO_3	$Be_4O(C_2H_3O_2)_6$	125 mL 500 mL	AABE1-1 AABE1-5
Bismuth, Bi	HNO_3	Bi metal	125 mL 500 mL	AABI1-1 AABI1-5
Boron, B	H_2O	H_3BO_3	125 mL 500 mL	AAB1-1 AAB1-5
Cadmium, Cd	HNO_3	Cd metal	125 mL 500 mL	AACD1-1 AACD1-5
Calcium, Ca	HNO_3	CaO	125 mL 500 mL	AACA1-1 AACA1-5
Cerium, Ce	HNO_3	CeO_2	125 mL 500 mL	AACE1-1 AACE1-5
Cesium, Cs	HNO_3	$CsNO_3$	125 mL 500 mL	AACS1-1 AACS1-5
Chromium, Cr	HNO_3	Cr metal	125 mL 500 mL	AACR1-1 AACR1-5
Cobalt, Co	HNO_3	Co metal	125 mL 500 mL	AACO1-1 AACO1-5
Copper, Cu	HNO_3	Cu metal	125 mL 500 mL	AACU1-1 AACU1-5
Dysprosium, Dy	HNO_3	Dy_2O_3	125 mL 500 mL	AADY1-1 AADY1-5
Erbium, Er	HNO_3	Er_2O_3	125 mL 500 mL	AAER1-1 AAER1-5
Europium, Eu	HNO_3	Eu_2O_3	125 mL 500 mL	AAEU1-1 AAEU1-5
Gadolinium, Gd	HNO_3	Gd_2O_3	125 mL 500 mL	AAGD1-1 AAGD1-5
Gallium, Ga	HNO_3	Ga metal	125 mL 500 mL	AAGA1-1 AAGA1-5
Germanium, Ge	HNO_3 / HF	Ge metal	125 mL 500 mL	AAGE1-1 AAGE1-5
Gold, Au	HCl	$HAuCl_4 \cdot xH_2O$	125 mL 500 mL	AAAU1-1 AAAU1-5
Hafnium, Hf	HNO_3 / HF	HfO_2	125 mL 500 mL	AAHF1-1 AAHF1-5
Holmium, Ho	HNO_3	Ho_2O_3	125 mL 500 mL	AAHO1-1 AAHO1-5
Indium, In	HNO_3	In metal	125 mL 500 mL	AAIN1-1 AAIN1-5

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ANALYTE	MATRIX	STARTING MATERIAL	VOLUME	CATALOG #
Iridium, Ir	HCl	$IrCl_3$	125 mL 500 mL	AAIR1-1 AAIR1-5
Iron, Fe	HNO_3	Fe metal	125 mL 500 mL	AAFE1-1 AAFE1-5
Lanthanum, La	HNO_3	La_2O_3	125 mL 500 mL	AALA1-1 AALA1-5
Lead, Pb	HNO_3	$Pb(NO_3)_2$	125 mL 500 mL	AAPB1-1 AAPB1-5
Lithium, Li	HNO_3	Li_2CO_3	125 mL 500 mL	AALI1-1 AALI1-5
Lutetium, Lu	HNO_3	Lu_2O_3	125 mL 500 mL	AALU1-1 AALU1-5
Magnesium, Mg	HNO_3	Mg metal	125 mL 500 mL	AAMG1-1 AAMG1-5
Manganese, Mn	HNO_3	Mn metal	125 mL 500 mL	AAMN1-1 AAMN1-5
Mercury, Hg	HNO_3	Hg metal	125 mL 500 mL	AAHG1-1 AAHG1-5
Molybdenum, Mo	NH_4OH	$(NH_4)_2MoO_4$	125 mL 500 mL	AAMO1-1 AAMO1-5
Neodymium, Nd	HNO_3	Nd_2O_3	125 mL 500 mL	AAND1-1 AAND1-5
Nickel, Ni	HNO_3	Ni metal	125 mL 500 mL	AANI1-1 AANI1-5
Niobium, Nb	HNO_3 / HF	Nb_2O_5	125 mL 500 mL	AANB1-1 AANB1-5
Palladium, Pd	HCl	$Pd(NO_3)_2$	125 mL 500 mL	AAPD1-1 AAPD1-5
Phosphorus, P	H_2O	H_3PO_4	125 mL 500 mL	AAP1-1 AAP1-5
Platinum, Pt	HCl	$PtCl_4$	125 mL 500 mL	AAPT1-1 AAPT1-5
Potassium, K	HNO_3	KNO_3	125 mL 500 mL	AAK1-1 AAK1-5
Praseodymium, Pr	HNO_3	Pr_6O_{11}	125 mL 500 mL	AAPR1-1 AAPR1-5
Rhenium, Re	HNO_3	Re metal	125 mL 500 mL	AARE1-1 AARE1-5
Rhodium, Rh	HCl	$RhCl_3$	125 mL 500 mL	AARH1-1 AARH1-5
Rubidium, Rb	HNO_3	$RbNO_3$	125 mL 500 mL	AARB1-1 AARB1-5
Ruthenium, Ru	HCl	NH_4RuCl_6	125 mL 500 mL	AARU1-1 AARU1-5
Samarium, Sm	HNO_3	Sm_2O_3	125 mL 500 mL	AASM1-1 AASM1-5
Scandium, Sc	HNO_3	Sc_2O_3	125 mL 500 mL	AASC1-1 AASC1-5

ATOMIC ABSORPTION

SINGLE-ELEMENT STANDARDS

1,000 µg/mL Standards

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ANALYTE	MATRIX	STARTING MATERIAL	VOLUME	CATALOG #
Selenium, Se	HNO_3	Se metal	125 mL 500 mL	AASE1-1 AASE1-5
Silicon, Si	HNO_3 / HF	SiO_2	125 mL 500 mL	AASI1-1 AASI1-5
Silver, Ag	HNO_3	Ag metal	125 mL 500 mL	AAAG1-1 AAAG1-5
Sodium, Na	HNO_3	Na_2CO_3	125 mL 500 mL	AANA1-1 AANA1-5
Strontium, Sr	HNO_3	$SrCO_3$	125 mL 500 mL	AASR1-1 AASR1-5
Sulfur, S	H_2O	H_2SO_4	125 mL 500 mL	AAS1-1 AAS1-5
Tantalum, Ta	HNO_3 / HF	Ta metal	125 mL 500 mL	AATA1-1 AATA1-5
Tellurium, Te	HCl	Te metal	125 mL 500 mL	AATE1-1 AATE1-5
Terbium, Tb	HNO_3	Tb_4O_7	125 mL 500 mL	AATB1-1 AATB1-5
Thallium, Tl	HNO_3	$TlNO_3$	125 mL 500 mL	AATL1-1 AATL1-5
Thorium, Th	HNO_3	$Th(NO_3)_4 \cdot 4H_2O$	125 mL 500 mL	AATH1-1 AATH1-5
Thulium, Tm	HNO_3	Tm_2O_3	125 mL 500 mL	AATM1-1 AATM1-5
Tin, Sn	HNO_3 / HF	Sn metal	125 mL 500 mL	AASN1-1 AASN1-5
Titanium, Ti	HNO_3 / HF	Ti metal	125 mL 500 mL	AATI1-1 AATI1-5
Tungsten, W	HNO_3 / HF	W metal	125 mL 500 mL	AAW1-1 AAW1-5
Uranium, U	HNO_3	$UO_2(NO_3)_2$	125 mL 500 mL	AAU1-1 AAU1-5
Vanadium, V	HNO_3	V_2O_5	125 mL 500 mL	AAV1-1 AAV1-5
Ytterbium, Yb	HNO_3	Yb_2O_3	125 mL 500 mL	AAYB1-1 AAYB1-5
Yttrium, Y	HNO_3	Y_2O_3	125 mL 500 mL	AAY1-1 AAY1-5
Zinc, Zn	HNO_3	Zn metal	125 mL 500 mL	AAZN1-1 AAZN1-5
Zirconium, Zr	HF	ZrO_2	125 mL 500 mL	AAZR1-1 AAZR1-5

Modifiers, Buffers & Releasing Agents

Custom modifiers, buffers and releasing agents are available upon request.

0.3% Palladium/0.2% Magnesium Modifier			
MM-PDMG-32		Volume: 125 mL Matrix: HNO_3	
Analyte	µg/mL	Analyte	µg/mL
$Mg(NO_3)_2$	2,000	Pd	3,000

1% Palladium Modifier	
MM-PD-10	Volume: 125 mL Matrix: HNO_3
Analyte	µg/mL
Pd	10,000

0.5% Palladium Modifier	
MM-PD-5	Volume: 125 mL Matrix: HNO_3
Analyte	µg/mL
Pd	5,000

2% Lithium Ionization Buffer	
LINB2-5	Volume: 500 mL Matrix: HNO_3
Analyte	µg/mL
Li	20,000

1% Lanthanum Releasing Agent	
LACB1-5	Volume: 500 mL Matrix: HCl
Analyte	µg/mL
La	10,000

4% Phosphate Modifier	
MM-P-40	Volume: 125 mL Matrix: H_2O
Analyte	µg/mL
PO_4	40,000

1% Magnesium Nitrate Modifier	
MM-MG-10	Volume: 125 mL Matrix: HNO_3
Analyte	µg/mL
$Mg(NO_3)_2$	10,000

MULTI-ELEMENT STANDARDS

Multi-Element Standards

Custom modifiers, buffers and releasing agents are available upon request.

GFAA Calibration Standard			
IV-STOCK-18 (M)		Volume: 125 mL Matrix: HNO_3	
Analyte	µg/mL	Analyte	µg/mL
Ag	10	Cu	50
Al	100	Fe	20
As	100	Mn	20
Ba	50	Ni	50
Be	5	Pb	100
Cd	5	Sb	100
Co	50	Se	100
Cr	20	Tl	100

AA Calibration Standard			
IV-STOCK-25 (C)		Volume: 500 mL Matrix: HNO_3	
Analyte	µg/mL	Analyte	µg/mL
Cr	3	Ni	10

(C) Common Multi-Element Standards

(M) Merck

TCLP

Custom EPA standards are available upon request.

Toxicity Characteristic Leachate Procedure (TCLP)

TCLP Hg Standard	
TCLP-AA-HG	Volume: 125 mL Matrix: HNO_3 Dilution: As required

Analyte	µg/mL
Hg	20

TCLP Standard			
TCLP-1REV		Volume: 125 mL Matrix: HNO_3 Dilution 1:5	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
Ag	25	Cr	25
As	25	Pb	25
Ba	500	Se	5
Cd	5		

CLP Graphite Furnace Standards

Custom EPA standards are available upon request.

Analytical Spiking Standard			
CLPF-ASPK-1		Volume: 125 mL Matrix: HNO_3 Dilution 1:10	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
As	20	Sb	120
Cd	10	Se	10
Pb	20	Tl	20

CCV/ICV Standard†			
QCP-CICV-4		Volume: 125 mL Matrix: HNO_3 Dilution 1:50	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
As	25	Sb	50
Cd	5	Se	50
Pb	25	Tl	25

Calibration Standard			
CLPF-CAL-1		Volume: 125 mL Matrix: HNO_3 Dilution 1:100	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
As	50	Sb	100
Cd	10	Se	100
Pb	50	Tl	50

Predigestion Spiking Standard			
CLPF-PSPK-1		Volume: 125 mL Matrix: HNO_3 Dilution 1:1,000	
Analyte	**µg/mL**	**Analyte**	**µg/mL**
As	40	Sb	100
Cd	5	Se	10
Pb	20	Tl	50

†Manufactured from in-house Second Source concentrates.

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